

20000721.ba v02_n953.bam.20000721

>From ???@??? Fri Jul 21 07:49:06 2000 -0500
Message-Id: <200007211247.e6LC1NJ26575@sco.theporch.com>
Date: Fri, 21 Jul 2000 07:46:58 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2953

BOATANCHORS Digest 2953

Topics covered in this issue include:

- 1) Speaking of Modulators.... MD-209
by Stanley A McIntosh <mcintos@basf-corp.com>
- 2) Pet Peeve: "Improved" Power Supply Circuits
by Stanley A McIntosh <mcintos@basf-corp.com>
- 3) Re: Stacking Boatanchors
by MODSTEPH@ACS.EKU.EDU
- 4) Conclusions: Stacking BAs
by w5sqe@iname.com
- 5) RE: Parks Electronics Laboratory 2m converter
by "Ken Warren" <Ken_Warren@beavton.k12.or.us>
- 6) Boatanchor Shelves; cable passageway
by "Mark, K5AM" <k5am@zianet.com>
- 7) Re: Pet Peeve: "Improved" Power Supply Circuits
by Arden Allen <gumbear@pacbell.net>
- 8) RE: Looking for NOS paper caps
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
- 9) Re: Conclusions: Stacking BAs
by Arden Allen <gumbear@pacbell.net>
- 10) Re: Conclusions: Stacking BAs
by john <johnmb@mindspring.com>
- 11) Re: Identify Kon-Tiki LI2B transmitter , Follow-up
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
- 12) RE: Parks Electronics Laboratory 2m converter
by "Jim Berry" <basalop@gte.net>
- 13) The Stockholm Telemuseum
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
- 14) Re: where'd the modulators go? (ARC5)
by "russ dworakowski" <wb3fau@hotmail.com>
- 15) Re: Parks Electronics Laboratory 2m converter
by "Larry Bearse" <lbearse@mail1.nai.net>
- 16) Re: Identify Kon-Tiki LI2B transmitter , Follow-up
by CEMILTON@aol.com
- 17) Re: Parks Electronics Laboratory 2m converter
by jackiv@juno.com
- 18) Re: Parks Electronics Laboratory 2m converter

- by Gary Woods <gwoods@albany.net>
- 19) Re: Parks Electronics Laboratory 2m converter
by "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>
- 20) Re: Parks Electronics Laboratory 2m converter
by Henry van Cleef <vancleef@netcom.com>
- 21) RE: Parks Electronics Laboratory 2m converter
by "Richard W. Solomon" <w1kszt@tiac.net>

From: Stanley A Mcintosh <mcintos@basf-corp.com>
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <85256922.004630AD.00@basf-corp-gw01.basf-corp.com>
Date: Thu, 20 Jul 2000 08:48:26 -0400
Subject: Speaking of Modulators.... MD-209
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The modulator thread reminded me of a unit (Modulator MD-209) that I need to figure out what to do with. It followed me home, and I'm realizing that I won't have time to do it justice. Anyone know anything about the history or use of this piece of military gear?

stan

From: Stanley A Mcintosh <mcintos@basf-corp.com>
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <85256922.0056CF8A.00@basf-corp-gw01.basf-corp.com>
Date: Thu, 20 Jul 2000 11:49:58 -0400
Subject: Pet Peeve: "Improved" Power Supply Circuits
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Several years ago, I allowed a forlorn Heathkit IO-10 DC/audio scope to follow me home from Shelby. It (supposedly) only needed a diode, and it'd be good to go. That was almost the end of the story, since another diode (the only silicon component in an otherwise true silicon-dioxide/vacuum piece of gear) restored trace, sweep, etc. However, there was some AC creeping into the vertical channel, and the AC amplitude is independent of vertical gain setting or whether the vertical input is grounded. Since the waveform in the trace looks to be a nice sine wave, I'm thinking that the horizontal channel might be relatively clean. Tube switches and fresh tubes did not make a difference. But, to get back to the point...

Before I obtained a manual, I tried recapping the power supply section. Some of the wiring looked a bit odd, but I did not take the time to trace it; I merely replaced the electrolytics with equivalent values, to no avail. Now, in an

effort to get the garage mess under some semblance of control, I've revived the project. This time, I have a schematic in hand, and I'm not happy with what I see. A previous owner apparently decided to "improve" the radio by using one big electrolytic in one RC filtering stage, as opposed to the intended two stages of filtering. This was in the negative supply. Last night, as part of putting the correct capacitor lineup into the rig, I started tracing through the wiring to prepare for restoring the circuitry to the original design. I've found one more bypass wire in the positive supply, and I saw another wire of dubious origins last night.

FWIW, I'm too cheap to spring for NOS multi-element cans, so I'm using new electrolytics as replacements. To avoid drilling any nonoriginal holes, I'm using the original can-mount screw holes to hold a perforated aluminum "U" that I made.

73
stan
kd4bth

Date: Thu, 20 Jul 2000 12:13:30 -0400 (EDT)
From: MODSTEPH@ACS.EKU.EDU
Subject: Re: Stacking Boatanchors
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <01JRZMNI5LUQ00DAWK@ACS.EKU.EDU>
MIME-version: 1.0
Content-type: TEXT/PLAIN; CHARSET=US-ASCII

Gang,

Looks like this is project for quite a few - including me. Finally have the time - and I certainly have the BA's! They have a better place to be than on the basement floor...

Local ham built heavy duty (wood) frame for his - thought I'd pass along a couple features which I plan to include in mine.

His bottom shelf is about 4" above the desktop on which the whole thing sits - just enough room for sliding a key, a bug, (for you new guys, a keyer), log sheets, paper, etc., rather like adding an extra drawer - except it is really handy for quick clearing when you also use the same desktop as a workbench.

Feature no. 2 for your consideration: The back of the thing is fairly open, and the whole setup (desk/table with

shelf thing) sits AWAY from the wall about two feet or so, room enough for him to walk behind and easily connect or disconnect cables, speakers, wires in general.

No. 3: He uses adjustable shelving: tracks mount vertically inside the frame, and the shelves may be set at whatever height he wishes (or how many he wishes). This is good heavy duty stuff - nothing cheap - as someone already said, its gotta be strong enough to hold several hundred pounds of stuff. Put that DX-100 here, and the B&W 5100 there, and the 32V-2 just there... now make room for your Johnson (anything - you got the idea).

Now back to the basement to continue planning for mine!

73, Al N5AIT

From: w5sqe@iname.com
MIME-Version: 1.0
Message-Id: <0007201220337G.24471@weba8.iname.net>
Date: Thu, 20 Jul 2000 12:20:33 -0400 (EDT)
Content-Type: Text/Plain
Content-Transfer-Encoding: 7bit
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Conclusions: Stacking BAs

My reason for requesting answers directly to me was to keep from overloading the reflectors with redundant answers. I had planned, from the outset, to post the general consensus of the replies. I so far have received over 50 replies. They were basically:

1. 2" to 4" space above receiver, with and without fans
2. Additionally add a small fan inside to move heat out
3. Metal shelves with vent holes in bottom

As to what I am going to do, based on what I received, and experiments I have made:

I measured the temperature just inside the top cover of the SX-28A (considered the hottest of my receivers, with nothing above the receiver. With a room temperature of 75F, the receiver temperature stabilized at 120F. I placed a shelf 5" above the receiver at 8pm and at 7am following morning receiver temperature was 135F. This is a 15 degree rise, and 15 added to the room temperature of 75F is 90F. Based on the fact that the SX-28A was designed to work in non-air conditioned rooms, which could be up to 100F, this should not be a problem. However, being a "belts and suspenders" type of person, I will install a "Muffen" fan directly behind each receiver, in a 1 x 6 board that will also stiffen the 3/4" plywood shelf. After I complete the installation, I will again run the temperature tests and post the results to the reflectors.

Thanks to everyone that replied; it is much appreciated.

Jim

Get free personalized email at <http://www.iname.com>

Message-id: <fc.004c4c31009d1f7a3b9aca006cec53db.9d2088@beavton.k12.or.us>
Date: Thu, 20 Jul 2000 09:28:31 -0700
Subject: RE: Parks Electronics Laboratory 2m converter
To: Old Tube Radios <boatanchors@theporch.com>
From: "Ken Warren" <Ken_Warren@beavton.k12.or.us>
MIME-Version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit

As I remember it Parks left Tektronix and started his own business in the mid 60's.

Tektronix made all of their own front panels. The panels were stamped and formed in building #16 metals, then etched, painted and printed depending on the era of the product in building #38 electrochem. I worked in maintenance in 38 for a couple of years and was able to observe most of the processes.

Ken Warren K7RPX

In the beginning man created tubes
and man saw that tubes were good.

Message-Id: <3.0.5.32.20000720170137.007f29e0@zianet.com>
Date: Thu, 20 Jul 2000 17:01:37 +0000
To: Old Tube Radios <boatanchors@theporch.com>
From: "Mark, K5AM" <k5am@zianet.com>
Subject: Boatanchor Shelves; cable passageway
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I leave a 2 foot passageway behind the shelves, to make cable connections easy. This also helps air circulation and cooling. The wall is filled with 12 inch storage shelves, so the boatanchor shelves are 3 feet from the wall.

73, Mark

Date: Thu, 20 Jul 2000 13:10:55 -0700
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: Pet Peeve: "Improved" Power Supply Circuits

To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0FY000JBNI0V1H@mta6.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi Stan;

>However, there was some AC creeping into the vertical
> channel, and the AC amplitude is independent of vertical gain setting or
whether
> the vertical input is grounded. Since the waveform in the trace looks to
be a
> nice sine wave, I'm thinking that the horizontal channel might be
relatively
> clean.

This may or may not be relevant. I have an IO-14 "lab" scope. It suffered
from what you describe. The AC ripple was caused by a ground loop in the
heater wiring. I changed the heater wiring to get the return current out
of the vertical amplifier board and the trace was then perfectly flat.
Good luck with the restoration.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <3.0.1.32.20000720152006.00a50180@vuse.vanderbilt.edu>
Date: Thu, 20 Jul 2000 15:20:06 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: RE: Looking for NOS paper caps
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 06:43 PM 7/17/00 -0400, you wrote:

>>Old wax paper caps, even NOS, are only useful for museums....
>
>John that's extreme.
>
>Lessay the worst of worst .1 @ 200V cathode bypass has 1meg leakage.
>What's that across 300 ohm cathode R?
>
>Or take a 100V screen @ 5ma. Load is 2K. Take that 1 meg leaker again.
>I used a huge public domain FORTRAN program to compute that's .5% of load
>
>These cannot be noticed by tube ckt.s
>
>And the tube ckt.s were meant to take huge component variations at build time

>

>Orange Dropping a radio in any areas beyond audio interstage* & AVC is
>usually just plain unnecessary

>

While some wax caps can continue to function at a nominal level indefinitely, many (especially those exposed to high voltages) ultimately will break down and yield leakages to a few k or even lower. Of special difficulty are bypass caps which not only toast the decoupling resistors but everything in the HV path when they go bad. I have restored four SX-42's, and after my experiences with them would not think of turning one on without replacing EVERY wax cap in the chassis. One may think it historically (or economically) correct to retain as many original parts as possible, but I would offer the argument that if failure of a part can result in irreparable damage to unreplaceable parts (IF transformers, switches, power and audio transformers) one would be irresponsible not to follow the path of caution.

A. B. Bonds

Date: Thu, 20 Jul 2000 13:31:22 -0700
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: Conclusions: Stacking BAs
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0FY000I4UJMNSP@mta6.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi Jim;

> My reason for requesting answers directly to me was to keep from
overloading the > reflectors with redundant answers.

But what about the "silent majority" who want to read the answers? What makes this list great is being able to sit in on the discussions. Much to learn and so little time. 73.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <3.0.3.32.20000720165054.00d53fc8@mindspring.com>
Date: Thu, 20 Jul 2000 16:50:54 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@mindspring.com>
Subject: Re: Conclusions: Stacking BAs
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Agree 100%. This is a topic of interest to many among us.

This is certainly on topic and useful to many.

John

wb5oau/4

(...who needs a good way to reinforce the floor in 2nd story hamshack that sits over the garage)

At 01:31 PM 7/20/00 -0700, Arden Allen wrote:

>Hi Jim;

>

>> My reason for requesting answers directly to me was to keep from
>overloading the > reflectors with redundant answers.

>

>But what about the "silent majority" who want to read the answers? What
>makes this list great is being able to sit in on the discussions. Much to
>learn and so little time. 73.

>

>Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

>

>

Message-Id: <3.0.1.32.20000720160236.00a6e100@vuse.vanderbilt.edu>

Date: Thu, 20 Jul 2000 16:02:36 -0500

To: Old Tube Radios <boatanchors@theporch.com>

From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>

Subject: Re: Identify Kon-Tiki LI2B transmitter , Follow-up

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

At 12:34 PM 7/7/00 -0400, you wrote:

>Anchorites,

>

>I located the 12-47 issue of QST which has much of the ham-related detail
>of the Kon-Tiki expedition. Had not known that the article existed. It
>provides some info on three home-brew transmitters designed and constructed
>by ham engineers at National, in aluminum water tight cases. One operated
>on 7 and 14 Mc, another at 28 Mc, and a third for 50 Mc. A Gibson Girl
>type was also aboard for 500 and 8280 Kc.

>

>It also notes that aboard were "two of the famous British 3-16 Mc. Mark II
>transmitters (dropped by the hundreds in all occupied countries during the
>war)." Is that the same as the B2?

>

>Only dry batteries were used, no wet cells.

>

Having just returned from visiting the Kon-Tiki Museum in Oslo, I regrettably have little to report. The original raft is presented in a very nice setting, and there are two pictures of the radio equipment being used in the display. What is apparent is that the radio equipment was contained in two large wooden boxes with hinged lids that were kept outside the cabin on the starboard side. Those boxes are still there on the raft as it is displayed. However, my enquiries with regard to the disposition of the radio equipment were met with blank stares and vague confessions of ignorance, and the personnel present were unwilling to lift the lids of the boxes to see what was inside. I will have pictures shortly.

A. B. Bonds

From: "Jim Berry" <basalop@gte.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Parks Electronics Laboratory 2m converter
Date: Thu, 20 Jul 2000 14:10:43 -0700
Message-ID: <000001bff28e\$f73b4e00\$30000f3f@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

John said,

> Also, do the component leads just go through the lugs
> without being bent
> around them? Looks that way from the photo. That is the
> Tektronix assembly
> style, they didn't go for mechanically securing leads
> before soldering.
> Again, it could be moonlighting Tektronix assemblers.

Remember that Tek used a high quality silver solder to hold the parts in place. I have built things "Tek style" using regular solder, and not had any trouble, but that technique is not recommended. Got some good silver solder, then go for it.

Those converters, like all the Tek gear, were really pretty inside.

73 Jim K7SLI

Message-Id: <3.0.1.32.20000720161924.00a5f4c0@vuse.vanderbilt.edu>
Date: Thu, 20 Jul 2000 16:19:24 -0500
To: Old Tube Radios <boatanchors@theporch.com>

From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: The Stockholm Telemuseum
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I have just returned from a tour through the Scandinavian countries and was fortunate to have time to visit the Stockholm Telecommunications Museum (URL is <http://www.telemuseum.se/english/english.html>)
If you ever get to that neighborhood, don't miss it. The bottom floor has a history of telegraphy, with hundreds of keys, sounders, switchers and mechanical transmitting and receiving devices, ending with a full Telex station. Following on this is their telephone display, with gorgeous European phones, switchboards galore and a fully operational electromechanical switching station. Great fun to hear the step relays chattering.

Upstairs they have the radio and TV section, with an operating ham station (only BA I saw there was a Drake Linear, rest was rice boxes). A nice history of radio transmitting and receiving gear as well as studio and recording equipment. For example, they had an AEG steel tape recorder (vintage 1937), an open-reel Ampex videotape machine and a complete RCA studio camera rig vintage 1952.

A must for BA fans, highest recommendation!
A. B. Bonds

From: "russ dworakowski" <wb3fau@hotmail.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: where'd the modulators go? (ARC5)
Date: Thu, 20 Jul 2000 19:25:03 EDT
Mime-Version: 1.0
Content-Type: text/plain; format=flowed
Message-ID: <LAW2-F95D7PQ0rsnjiR0000114b@hotmail.com>

Ah yes Ed, my heart is with the R390a. Probably one of the best receivers ever built.

>From: Ed Zeranski <ezeran@concentric.net>
>Reply-To: ezeran@concentric.net
>To: Old Tube Radios <boatanchors@theporch.com>
>Subject: Re: where'd the modulators go? (ARC5)
>Date: Wed, 19 Jul 2000 20:35:10 -0700
>
>At 08:31 PM 7/19/00 -0400, russ dworakowski wrote:
>>Yes NIB, I also know where I can get a BC-455 in the box.
>>Pretty darn amazing considering the age! Russ

>>

>Too Cool! Radio stuff from when family was dying fighting NAZIs that lasted
>through when I did with same doing commies in Vietnam. Do have some ARC5
>stuff but my soul is locked into things like TCS... worked for us.
>

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Message-ID: <002e01bff2b1\$ccd04e40\$c8a085d0@thecave>
From: "Larry Bearse" <lbearse@mail1.nai.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Parks Electronics Laboratory 2m converter
Date: Thu, 20 Jul 2000 21:16:35 -0400
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Sheldon, sorry, I don't have any information, but I also found a Parks
converter recently. It is the 6mtr version and works great. The IF is 14Mhz
on this one.

73.....Larry WA1LGQ

From: CEMILTON@aol.com
Message-ID: <ac.802395f.26a9067d@aol.com>
Date: Thu, 20 Jul 2000 21:50:53 EDT
Subject: Re: Identify Kon-Tiki LI2B transmitter , Follow-up
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

In a message dated 07/20/2000 5:08:51 PM Eastern Daylight Time,
ab@vuse.vanderbilt.edu writes:

<< Having just returned from visiting the Kon-Tiki Museum in Oslo, I
regrettably have little to report. The original raft is presented in a
very nice setting, and there are two pictures of the radio equipment being
used in the display. >>

A.B.

I visited the museum in the mid-70's and the subject of radios on the Kon-Tiki were met with similar, puzzled faces. Not disrespectful, mind you, but simply un-informed. The exhibit is still one of awe and suggested viewing for those visiting Oslo..... It's a beautiful City.

Chuck

W4MIL

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Date: Thu, 20 Jul 2000 20:49:27 -0500
Subject: Re: Parks Electronics Laboratory 2m converter
Message-ID: <20000720.205028.-265417.2.jackiv@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
From: jackiv@juno.com

About the Tek silver solder- the ceramic terminal "boards" that Tek used were silver plated in the grooves that held the leads. A 2% silver solder was used to prevent the absorption of this silver into the solder which would destroy the solder/silver/ceramic bond. Please correct me if I am wrong. ie- let the flames begin.

73s

Jack

On Thu, 20 Jul 2000 14:10:43 -0700 "Jim Berry" <basalop@gte.net> writes:

>
> John said,
>
> > Also, do the component leads just go through the lugs
> > without being bent
> > around them? Looks that way from the photo. That is the
> > Tektronix assembly
> > style, they didn't go for mechanically securing leads
> > before soldering.
> > Again, it could be moonlighting Tektronix assemblers.
>
> Remember that Tek used a high quality silver solder to hold the
> parts
> in place. I have built things "Tek style" using regular solder, and
> not had any trouble, but that technique is not recommended. Got
> some
> good silver solder, then go for it.
>
> Those converters, like all the Tek gear, were really pretty inside.

>
> 73 Jim K7SLI
>

From: Gary Woods <gwoods@albany.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Parks Electronics Laboratory 2m converter
Date: Thu, 20 Jul 2000 21:58:27 -0400
Message-ID: <1fbfnsoojrbheqfcijl85lv19ld3h3ipka@4ax.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

On Thu, 20 Jul 2000 20:49:27 -0500, you wrote:

>About the Tek silver solder- the ceramic terminal "boards" that Tek used
>were silver plated in the grooves that held the leads

The Tek stuff I saw always had a little hank of the necessary silver-bearing (not silver solder per se, but some silver in it) solder in the bottom of the chassis. The books say an occasional repair with regular solder won't hurt, and thankfully, repairs weren't that often!

--
Gary Woods O- K2AHC Public keys at www.albany.net/~gwoods, or get 0x1D64A93D via
keyserver
gwoods@albany.net gwoods@wr gb.com
fingerprint = E2 6F 50 93 7B C7 F3 CA 1F 8B 3C C0 B0 28 68 0B

Message-Id: <3.0.5.32.20000720223603.007efd80@miavx1.muohio.edu>
Date: Thu, 20 Jul 2000 22:36:03 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>
Subject: Re: Parks Electronics Laboratory 2m converter
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

FYI: A couple of years ago I bought a spool of silver-bearing solder from Radio Shack. It should be a good substitute if you don't have the original Tek solder.

73,
Jim W8ZR

>The Tek stuff I saw always had a little hank of the necessary

>silver-bearing (not silver solder per se, but some silver in it) solder in
>the bottom of the chassis.

W8ZR Amateur Radio Website: <http://www.muohio.edu/~4cx250b/web/>

From: Henry van Cleef <vancleef@netcom.com>
Message-Id: <200007210425.VAA26138@netcom.com>
Subject: Re: Parks Electronics Laboratory 2m converter
To: Old Tube Radios <boatanchors@theporch.com>
Date: Thu, 20 Jul 2000 22:25:20 -0600 (MDT)
Cc: boatanchors@theporch.com (Old Tube Radios)
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

As Jim Berry discourses

>
>
> Remember that Tek used a high quality silver solder to hold the parts
> in place. I have built things "Tek style" using regular solder, and
> not had any trouble, but that technique is not recommended. Got some
> good silver solder, then go for it.

>
> Those converters, like all the Tek gear, were really pretty inside.

>
Trying to remember what was in Beaverton (besides a 2-block main
street) in the early sixties, "Parks" doesn't ring a bell, although
there was an outfit in town that went bust around 1964. I picked up
some junk at their auction.

So far as Tek's construction practices go, somebody there did a study
back in the early days (when Tek was on Hawthorne Blvd. in Portland)
that showed that solder joints for lab equipment didn't need to be
wrapped. I don't know whose idea the slotted ceramic strips with the
silver-bearing frit in the notches was, but they replaced Jones
barrier strips (those bakelite jobs with screw terminals on them)
which were used for the very first scopes (the original 1947 511,
which Tek bought back around 1962, was built this way).

The solder that Tek used was "silver bearing," that is, a small
percentage of silver added to a convention pewter solder alloy that
was near-eutectic. Mechanically, electrically, and chemically, very
close to conventional 63-37 eutectic tin-lead. The function of the
silver was to prevent leaching the silver out of the frit in the
ceramic strips. You can get the stuff at Radio Shack.

"Silver solder" is completely different----it is a "hard solder" or "brazing" alloy that requires a lot more heat to melt. Generally worked with a gas torch, and not commonly used for electrical connections except under unusual mechanical or high-temperature circumstances.

Tektronix under Howard Vollum (1947-66) was a very unusual high-tech company. One small "feature" was their sponsorship (in some instances) of other electronics manufacturing firms, some started by Tektronix employees. Tek actually sent people down to Salem to try to make Morrow into a viable operation. And Exact was a near-Tek deal that had ex-Tek people running it for several years. However, so far as I know, Tek did not do subcontract work for other houses, and while moonlight one-off projects weren't frowned on, they weren't officially sanctioned, either. Tek did sell some components such as ceramic strips and plug-in frames as catalog items, although very few third-party manufacturers built accessories for Tek scopes. Most notable third party was Pentrix on Long Island, who build the spectrum analyzers. However, these were very much a "Lawn Gisland" technology product, owing more to Polarad than Tektronix, and Tek found absorbing the company after they bought them to be a rather lengthy process. Note that Tek built two series of spectrum analyzers; first, the Pentrix product, which was done in separate facilities from Tek manufacturing; then, after a redesign, as conventional Tek products.

Message-ID: <01BFF2F0.59B6FAA0.w1kszt@tiac.net>
From: "Richard W. Solomon" <w1kszt@tiac.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "'Boatacnhors'" <boatanchors@theporch.com>
Subject: RE: Parks Electronics Laboratory 2m converter
Date: Fri, 21 Jul 2000 08:47:49 -0400

No Flames ...

You are correct. The source of that Silver Solder has about dried up. However, small useage of regular solder for repairs will not destroy the terminal strip. Just don't make a habit of it. How many times can you use regular solder ?? I leave that to the Physicists !!
I think the newer TEK equipment (7XXX, 4XX) used regular solder.
Correct me if I am wrong.

73, Dick, W1KSZ

-----Original Message-----

From: jackiv@juno.com [SMTP:jackiv@juno.com]
Sent: Thursday, July 20, 2000 9:49 PM

To: Old Tube Radios
Cc: boatanchors@theporch.com
Subject: Re: Parks Electronics Laboratory 2m converter

About the Tek silver solder- the ceramic terminal "boards" that Tek used were silver plated in the grooves that held the leads. A 2% silver solder was used to prevent the absorption of this silver into the solder which would destroy the solder/silver/ceramic bond. Please correct me if I am wrong. ie- let the flames begin.

73s

Jack

On Thu, 20 Jul 2000 14:10:43 -0700 "Jim Berry" <basalop@gte.net> writes:

>
> John said,
>
> > Also, do the component leads just go through the lugs
> > without being bent
> > around them? Looks that way from the photo. That is the
> > Tektronix assembly
> > style, they didn't go for mechanically securing leads
> > before soldering.
> > Again, it could be moonlighting Tektronix assemblers.
>
> Remember that Tek used a high quality silver solder to hold the
> parts
> in place. I have built things "Tek style" using regular solder, and
> not had any trouble, but that technique is not recommended. Got
> some
> good silver solder, then go for it.
>
> Those converters, like all the Tek gear, were really pretty inside.
>
> 73 Jim K7SLI
>

End of BOATANCHORS Digest 2953
